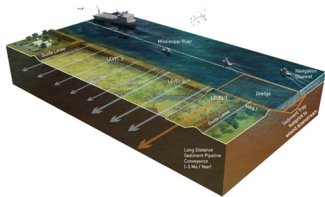
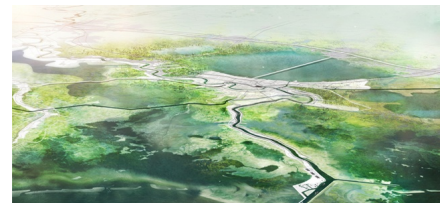
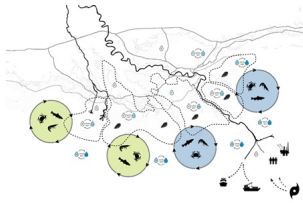
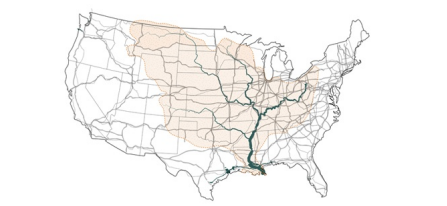


THE GIVING DELTA

2014 ongoing, Lower Mississippi River Delta, USA



Most coastal settlements occupy a tenuous line at the edge of water and land. They are strategically positioned on the ocean's edge, but have to balance the consequences of coastal storms and increasingly the effects of climate change. However, the Deltaic Louisiana Coast has an opportunity that most other coastal regions do not: a dynamic, sediment-rich river that drains 40% of the contiguous US, which can continuously replenish this edge into a rich, productive wetland zone.

While other cities are exposed to rising seas on fixed coastal edges, Louisiana can free itself from a century-long approach of flood control into one of controlled flooding and deposition, allowing the annual pulses of the Mississippi River to sustain a thriving wetland apron and allow for active land-building, protecting one of the Nation's most crucial economic zones, enhancing ecosystem productivity, and nourishing human occupation for centuries to come.

Team [Moffatt & Nichol](#) | [West 8](#) | [LSU-CSS](#) proposal - **The Giving Delta** project proposes six primary strategies that will bring a self-sustaining Delta into being over the next century.

1. Couple annual river operations with long term adaption
2. Shift from flood controlled to controlled flow
3. Move the mouth of the river inland
4. Inevitable transgression leads to a consolidated delta zone
5. Invest in ports & shipping in a consolidated working delta
6. Link community infrastructure in a resilient and adaptive network

A host of engineering and design tactics were studied, bringing these strategies to level of realism that demonstrates this project is implementable. Sand Motors and barrier islands harness longshore and offshore coastal processes to keep sediment and sand in the littoral zone for the long term.

Investment in the Gulf Intercoastal Waterway underpins the importance of a key commercial and industrial corridor while allowing for inter-basin management of salinity levels. Structures such as passive spillways and controlled floodways are carefully sized for projected flood levels that maximize sediment deposition while keeping salinity levels within the tolerance of oyster beds, commercial fisheries, and native ecosystems. Sediment traps and dedicated dredging allow active control and placement of precious sediments to the areas within the Coastal Zone where it is needed most urgently for economic and residential protection.

For more information visit [Changing Course](#)

client

Environmental Defense Fund with the support and participation of the State of Louisiana and U.S. Army Corps of Engineers

partners

Moffatt & Nichol, LSU Coastal Sustainability Studio, Deltares, Ioannis Georgiou, Headland & Associates, RAND

awards

2016 ASLA New York Chapter Merit Award

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